

Results of the 1989 Survey for  
Harlequin Ducks (Histrionicus histrionicus)  
on the  
Kootenai National Forest, Montana  
and the  
Flathead National Forest, Montana

A Preliminary Report to

USDA Forest Service  
Kootenai National Forest  
506 U.S. Hwy 2 W  
Libby, MT 59923

USDA Forest Service  
Flathead National Forest  
1935 Third Ave. East  
Kalispell, MT 59901

by

Lisa M. Fairman

David L. Genter

and

Cedron Jones

Montana Natural Heritage Program  
1515 East Sixth Avenue  
Helena, MT 59620

FOREST-DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
Kootenai N.F.					
Cabinet R.D.	Bull River	5-14-89	0.5	0	N/A
		6-24-89	6.0	0	N/A
		8-07-89	0.4	0	N/A
	East Fork Blue	6-07-89	1.0	0	N/A
	East Fork Elk	5-14-89	1.0	0	N/A
		6-26-89	3.5	0	N/A
		8-07-89	2.0	0	N/A
	Elk	6-26-89	1.0	0	N/A
		8-07-89	2.5	0	N/A
	Marten	5-14-89	1.0	0	N/A
		6-06-89	1.0	0	N/A
		6-29-89	3.5	1J	T25N, R33W, Sec21
		8-11-89	2.25	2H, 12J	T25N, R33W, Sec25
	Rock	5-14-89	0.75	0	N/A
		6-27-89	4.0	1H	T26N, R32W, Sec15
		8-08-89	4.0	0	N/A
	South Fork Marten	5-14-89	0.5	1D, 1H	T25N, R32W, Sec31
		6-29-89	1.8	1H	R25N, R32W, Sec32
		8-11-89	2.5	0	N/A
	Swamp	5-20-89	0.5	0	N/A
		6-28-89	4.0	2H, 10J	T25N, R31W, Sec16
		8-10-89	4.6	1J	T26N, R31W, Sec34
	Vermilion River	5-20-89	2.7	0	T25N, R31W, Sec9
		7-07-89	5.5	1H, 7J	N/A
		8-14, 15-89	11.0	2H, 11J	T24N, R30W, Sec8
					T24N, R31W, Sec12
					T24N, R30W, Sec7
					T24N, R30W, Sec8
					T24N, R30W, Sec3
Lolo N.F.					
Plains/Thompson Falls	Big Rock	6-09-89	0.6	0	N/A
		7-14-89	2.4	0	N/A
Fishtrap		5-29-89	12.0	0	N/A
		7-12, 13-89	9.0	0	N/A
		8-28, 29-89	10.6	0	N/A

Table 1. CLAG

FOREST-DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
	Graves	5-20-89 7-06-89 8-16-89	2.5 3.5 2.8	0 0 0	N/A N/A N/A
	Little Thompson	6-09-89 7-19-89 8-28-89	0.4 5.0 3.7	0 0 0	N/A N/A N/A
	Prospect	5-20-89 7-03-89 8-16-89	1.0 4.6 4.6	0 0 0	N/A N/A N/A
	Thompson River	5-29-89 6-09-89 7-10, 11-89 7-17, 18-89 8-21, 22-89	16.0 28.0 18.0 11.0 19.0	0 0 0 0 0	N/A N/A N/A N/A N/A
	West Fk Fishtrap	5-29-89 7-12-89	1.0 1.0	0 0	N/A N/A
	West Fork Thompson River	5-29-89 7-10-89 8-21-89	5.0 4.3 4.3	0 0 0	N/A N/A N/A
Superior R.D.	Big	6-16-89 7-25, 26-89	4.0 3.3	0 0	N/A N/A
	Cedar	6-21-89 8-02-89	5.0 5.3	0 0	N/A N/A
	Deer	7-25-89	1.5	0	N/A
	Little Joe	6-20-89 7-31-89	4.0 3.2	0 0	N/A N/A
	Packer	6-15-89 7-26-89	3.5 1.0	0 0	N/A N/A
	St. Regis River	6-13, 14-89 7-25, 26, 27	24.0 22.0	0 0	N/A N/A
	Trout	6-22-89 8-01-89	5.0 6.6	1H, 5J 1H, 4J	T16N, R26W, Sec28 T15N, R26W, Sec8
	Twelvemile	6-19-89 7-27-89	4.5 3.5	0 0	N/A N/A

Table 1 cont.

FOREST- DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
	Ward	7-31-89	1.2	0	N/A
	West Fork Packer	6-16-89	1.0	0	N/A

Table 1 cont.

FOREST-DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
Kootenai N.F.					
Fisher River R.D.	East Fisher	6-20-89	0.5	0	N/A
	Fisher River	6-13-89	5.25	0	N/A
	Silver Butte	8-12-89	5.0	0	N/A
	Wolf	6-05-89	3.0	0	N/A
Fortine R.D.	Graves	5-19-89	4.0	10, 1H (1 pair)	T37N, R24W, Sec32, SW
		6-01-89	2.0	20, 2H (2 pair)	T37N, R24W, Sec32, SW
		6-15-89	1.0	0	N/A
		6-21-89	1.0	0	N/A
		7-19, 20-89	2.5	1H	T36N, R25W, Sec1, NE
Libby R.D.	Kootenai River	5-14-89	1.0	0	N/A
		7-25-89	4.0	0	N/A
		8-20-89	6.0	0	N/A
	Pipe	6-09-89	3.0	0	N/A
		7-21-89	3.25	0	N/A
	Quartz	5-23-89	1.0	0	N/A
		7-22-89	3.0	0	N/A
	West Fisher	6-19-89	3.0	0	N/A
		8-10, 11, 12	7.0	0	N/A
Rexford R.D.	Big	5-19-89	3.5	0	N/A
		8-23, 24, 25	11.0	0	N/A
	Pinkham	5-26-89	1.0	0	N/A
	Sutton	5-26-89	1.0	0	N/A
	Young	5-26-89	1.0	0	N/A
Three Rivers R.D	Callahan	6-11-89	3.0	0	N/A
		7-23-89	2.75	0	N/A
	East Fork Yeak	5-26-89	0.5	0	N/A
		7-31-89	2.25	0	N/A
		8-17-89	2.5	0	N/A
	Keeler	5-24-89	0.25	0	N/A

Table 2. Kootenai Survey Area Results

FOREST-DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
	Kootenai Falls	5-14-89 5-28-89 6-04-89 6-11-89 6-24-89	0.25 0.25 0.25 0.25 0.25	40, 2H (1 pair) 3D 0 1D 0	T31N, R33W, Sec13, NW T31N, R33W, Sec13, NW N/A T31N, R33W, Sec13, NW N/A
	Kootenai River	5-25-89	1.5	0	N/A
	Lake	5-24-89	1.25	0	N/A
	North Fork Yaak	8-17-89	3.0	0	N/A
	Pete	5-25-89	0.5	0	N/A
	Seventeen Mile	5-25-89 8-18-89	0.5 3.5	0 0	N/A N/A
	South Fork Yaak	8-19-89	2.0	0	N/A
	Spar Lake	5-24-89	2.0	0	N/A
	Spread	5-25-89 8-18-89	0.25 3.5	0 0	N/A N/A
	West Fork Yaak	5-26-89 7-29-89	2.0 3.0	0 0	N/A N/A
	Yaak	7-31-89 8-18-89	4.75 4.5	0 0	N/A N/A

Table 2 cont.

FOREST-DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
Flathead N.F.					
Hungry Horse R.D.	Aeneas	8-31-89	1.6	0	N/A
	Clayton	8-30-89	1.7	0	N/A
	Emery	9-01-89	2.0	0	N/A
	Graves	8-30,31-89	2.6	0	N/A
	Hungry Horse	9-01-89	2.5	0	N/A
	Wounded Buck	8-30-89	2.8	4J	T29N, R18W, Sec18
Tally Lake R.D. *	Good	5-89	---	0	N/A
	Logan	5-89	---	0	N/A
Glacier View R.D.*	Big	6-89	---	0	N/A
	Coal	6-89	---	0	N/A
	Hay	6-89	---	0	N/A
	N.Fk Flathead	6-89	---	0	N/A
	Red Meadow	6-89	---	0	N/A
	Trail	6-89	---	0	N/A
	Whale	6-89	---	0	N/A
Stillwater State Forest *	Fitzsimmons	5-89	---	0	N/A
	Stillwater	5-89	---	0	N/A
	Swift	5-89	---	0	N/A

\* exact date and miles not available

Table 3. Flathead Survey Area results

FOREST-DISTRICT	LOCATION	DATE	SIGHTING	OBSERVER
Kootenai N.F.				
Cabinet R.D.	East Fork Bull - near Lost Cab Gulch	1988-May	1 D and 1 H	Andy Juden-Heron, MT
	Bull River-near Star Gulch	1989-May	1 D	Jim Swanson-Thompson Falls, MT
	Galena Gulch	9-3-1989	3 to 4 J or H	T.P. Michael
Fortine R.D.	Graves Creek	1980's	occurrence-specifics unknown	Steve Fox, Tim Manley- USFS, MTFWP
Libby R.D.	Quartz Creek-1/2 to 1 mile upstream from mouth	1981 or 1982	1 D and 1 H	Al Bratkovich-USFS
	Quartz Creek-1/2 mile upstream from mouth	1987 or 1988	3 chicks caught unharmed in upstream fishtrap. Released unharmed.	Barry Hansen-MTFWP
	Yaak River	1980's-Christmas Bird Count, year unknown	3 H	Barry Hansen-MTFWP Jon Jeresek-USFS
Rexford R.D.	Big Creek-at mouth	1988-spring	1 adult	Marge Swanson-Libby, MT
Three Rivers R.D.	Callahan	1986-spring	1 D and 1 H (1 pair)	Barry Hansen-MTFWP
	East Fork Yaak	1980's-date unknown	occurrence-specifics unknown (may be wood ducks)	Clint and Gloria Mills-Yaak, MT
	Kootenai Falls	1980's-yearly 1980's-early	numerous sightings of D, H, and some J Nest site located within log/debris jam above Falls.	numerous biologists and bird watchers Carl Wolf-USFS
	North Fork Yaak	1980's-date unknown	occurrence-specifics unknown	Bill Pomeroy-USFS
	Seventeen Mile-1/4 mile upstream from mouth near bridge	1988	occurrence-specifics unknown	Bill Pomeroy-USFS
	Spar Lake- at Whoopee Creek confluence	1988-spring	1 D and 1 H (1 pair)	Bob Byars-USFS
	Yaak River-at mile post #13	1983-spring	occurrence-specifics unknown	Randy Matchet-MTFWP



FOREST-DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
Kootenai N.F.					
Cabinet R.D.	Bull River	5-14-89	0.5	0	N/A
		6-24-89	6.0	0	N/A
		8-07-89	0.4	0	N/A
	East Fork Blue	6-07-89	1.0	0	N/A
	East Fork Elk	5-14-89	1.0	0	N/A
		6-26-89	3.5	0	N/A
		8-07-89	2.0	0	N/A
	Elk	6-26-89	1.0	0	N/A
		8-07-89	2.5	0	N/A
	Marten	5-14-89	1.0	0	N/A
		6-06-89	1.0	0	N/A
		6-29-89	3.5	1J	T25N, R33W, Sec21
		8-11-89	2.25	2H, 12J	T25N, R33W, Sec25
	Rock	5-14-89	0.75	0	N/A
		6-27-89	4.0	1H	T26N, R32W, Sec15
		8-08-89	4.0	0	N/A
	South Fork Marten	5-14-89	0.5	1D, 1H	T25N, R32W, Sec31
		6-29-89	1.8	1H	R25N, R32W, Sec32
		8-11-89	2.5	0	N/A
	Swamp	5-20-89	0.5	0	N/A
		6-28-89	4.0	2H, 10J	T25N, R31W, Sec16
		8-10-89	4.6	1J	T26N, R31W, Sec34
	Vermilion River	5-20-89	2.7	0	T25N, R31W, Sec9
		7-07-89	5.5	1H, 7J	N/A
		8-14, 15-89	11.0	2H, 11J	T24N, R30W, Sec8
					T24N, R31W, Sec12
					T24N, R30W, Sec7
					T24N, R30W, Sec8
					T24N, R30W, Sec3
Lolo N.F.					
Plains/ Thompson Falls	Big Rock	6-09-89	0.6	0	N/A
		7-14-89	2.4	0	N/A
Fishtrap		5-29-89	12.0	0	N/A
		7-12, 13-89	9.0	0	N/A
		8-28, 29-89	10.6	0	N/A

FOREST-DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
	Graves	5-20-89 7-06-89 8-16-89	2.5 3.5 2.8	0 0 0	N/A N/A N/A
	Little Thompson	6-09-89 7-19-89 8-28-89	0.4 5.0 3.7	0 0 0	N/A N/A N/A
	Prospect	5-20-89 7-03-89 8-16-89	1.0 4.6 4.6	0 0 0	N/A N/A N/A
	Thompson River	5-29-89 6-09-89 7-10,11-89 7-17,18-89 8-21,22-89	16.0 28.0 18.0 11.0 19.0	0 0 0 0 0	N/A N/A N/A N/A N/A
	West Fk Fishtrap	5-29-89 7-12-89	1.0 1.0	0 0	N/A N/A
	West Fork Thompson River	5-29-89 7-10-89 8-21-89	5.0 4.3 4.3	0 0 0	N/A N/A N/A
Superior R.D.	Big	6-16-89 7-25,26-89	4.0 3.3	0 0	N/A N/A
	Cedar	6-21-89 8-02-89	5.0 5.3	0 0	N/A N/A
	Deer	7-25-89	1.5	0	N/A
	Little Joe	6-20-89 7-31-89	4.0 3.2	0 0	N/A N/A
	Packer	6-15-89 7-26-89	3.5 1.0	0 0	N/A N/A
	St. Regis River	6-13,14-89 7-25,26,27	24.0 22.0	0 0	N/A N/A
	Trout	6-22-89 8-01-89	5.0 6.6	1H, 5J 1H, 4J	T16N, R26W, Sec28 T15N, R26W, Sec8
	Twelvemile	6-19-89 7-27-89	4.5 3.5	0 0	N/A N/A

FOREST-DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
	Ward	7-31-89	1.2	0	N/A
	West Fork Packer	6-16-89	1.0	0	N/A

FOREST-DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
Kootenai N.F.					
Fisher River R.D.	East Fisher	6-20-89	0.5	0	N/A
	Fisher River	6-13-89	5.25	0	N/A
	Silver Butte	8-12-89	5.0	0	N/A
	Wolf	6-05-89	3.0	0	N/A
Fortine R.D.	Graves	5-19-89	4.0	10, 1H (1 pair)	T37N, R24W, Sec32, SW
		6-01-89	2.0	20, 2H (2 pair)	T37N, R24W, Sec32, SW
		6-15-89	1.0	0	N/A
		6-21-89	1.0	0	N/A
		7-19, 20-89	2.5	1H	T36N, R25W, Sec1, NE
Libby R.D.	Kootenai River	5-14-89	1.0	0	N/A
		7-25-89	4.0	0	N/A
		8-20-89	6.0	0	N/A
	Pipe	6-09-89	3.0	0	N/A
		7-21-89	3.25	0	N/A
	Quartz	5-23-89	1.0	0	N/A
		7-22-89	3.0	0	N/A
	West Fisher	6-19-89	3.0	0	N/A
		8-10, 11, 12	7.0	0	N/A
Rexford R.D.	Big	5-19-89	3.5	0	N/A
		8-23, 24, 25	11.0	0	N/A
	Pinkham	5-26-89	1.0	0	N/A
	Sutton	5-26-89	1.0	0	N/A
	Young	5-26-89	1.0	0	N/A
Three Rivers R.D.	Callahan	6-11-89	3.0	0	N/A
		7-23-89	2.75	0	N/A
	East Fork Yaak	5-26-89	0.5	0	N/A
		7-31-89	2.25	0	N/A
		8-17-89	2.5	0	N/A
	Keeler	5-24-89	0.25	0	N/A

FOREST-DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
	Kootenai Falls	5-14-89 5-28-89 6-04-89 6-11-89 6-24-89	0.25 0.25 0.25 0.25 0.25	40, 2H (1 pair) 30 0 10 0	T31N, R33W, Sec13, NW T31N, R33W, Sec13, NW N/A T31N, R33W, Sec13, NW N/A
	Kootenai River	5-25-89	1.5	0	N/A
	Lake	5-24-89	1.25	0	N/A
	North Fork Yaak	8-17-89	3.0	0	N/A
	Pete	5-25-89	0.5	0	N/A
	Seventeen Mile	5-25-89 8-18-89	0.5 3.5	0 0	N/A N/A
	South Fork Yaak	8-19-89	2.0	0	N/A
	Spar Lake	5-24-89	2.0	0	N/A
	Spread	5-25-89 8-18-89	0.25 3.5	0 0	N/A N/A
	West Fork Yaak	5-26-89 7-29-89	2.0 3.0	0 0	N/A N/A
	Yaak	7-31-89 8-18-89	4.75 4.5	0 0	N/A N/A

FOREST-DISTRICT	STREAM	DATE	MILES SURVEYED	HARLEQUIN SIGHTINGS	SIGHTING LOCATION
Flathead N.F.					
Hungry Horse R.D.	Aeneas	8-31-89	1.6	0	N/A
	Clayton	8-30-89	1.7	0	N/A
	Emery	9-01-89	2.0	0	N/A
	Graves	8-30, 31-89	2.6	0	N/A
	Hungry Horse	9-01-89	2.5	0	N/A
	Wounded Buck	8-30-89	2.8	4J	T29N, R18W, Sec18
Tally Lake R.D. *	Good	5-89	---	0	N/A
	Logan	5-89	---	0	N/A
Glacier View R.D.*	Big	6-89	---	0	N/A
	Coal	6-89	---	0	N/A
	Hay	6-89	---	0	N/A
	N.Fk Flathead	6-89	---	0	N/A
	Red Meadow	6-89	---	0	N/A
	Trail	6-89	---	0	N/A
	Whale	6-89	---	0	N/A
Stillwater State Forest *	Fitzsimmons	5-89	---	0	N/A
	Stillwater	5-89	---	0	N/A
	Swift	5-89	---	0	N/A

\* exact date and miles not available

FOREST-DISTRICT	LOCATION	DATE	SIGHTING	OBSERVER
Kootenai N.F.				
Cabinet R.D.	East Fork Bull- near Lost Cab Gulch	1988-May	1 D and 1 H	Andy Juden-Heron, MT
	Bull River-near Star Gulch	1989-May	1 D	Jim Swanson-Thompson Falls, MT
	Galena Gulch	9-3-1989	3 to 4 J or H	T.P. Michael
Fortine R.D.	Graves Creek	1980's	occurrence-specifics unknown	Steve Fox, Tim Manley- USFS, MTFWP
Libby R.D.	Quartz Creek-1/2 to 1 mile upstream from mouth	1981 or 1982	1 D and 1 H	Al Bratkovich-USFS
	Quartz Creek-1/2 mile upstream from mouth	1987 or 1988	3 chicks caught unharmed in upstream fishtrap. Released unharmed.	Barry Hansen-MTFWP
	Yaak River	1980's-Christmas Bird Count, year unknown	3 H	Barry Hansen-MTFWP Jon Jerecek-USFS
Rexford R.D.	Big Creek-at mouth	1988-spring	1 adult	Marge Swanson-Libby, MT
Three Rivers R.D.	Callahan	1986-spring	1 D and 1 H (1 pair)	Barry Hansen-MTFWP
	East Fork Yaak	1980's-date unknown	occurrence-specifics unknown (may be wood ducks)	Clint and Gloria Mills-Yaak, MT
	Kootenai Falls	1980's-yearly 1980's-early	numerous sightings of D, H, and some J Nest site located within log/debris jam above Falls.	numerous biologists and bird watchers Carl Wolf-USFS
	North Fork Yaak	1980's-date unknown	occurrence-specifics unknown	Bill Pomeroy-USFS
	Seventeen Mile-1/4 mile upstream from mouth near bridge	1988	occurrence-specifics unknown	Bill Pomeroy-USFS
	Spar Lake- at Whoopee Creek confluence	1988-spring	1 D and 1 H (1 pair)	Bob Byars-USFS
	Yaak River-at mile post #13	1983-spring	occurrence-specifics unknown	Randy Matchet-MTFWP

FIGURE 3

STREAM GRADIENT ESTIMATES  
(degrees)

(Calculated by gain in elevation, from contour maps, per mile surveyed)

